

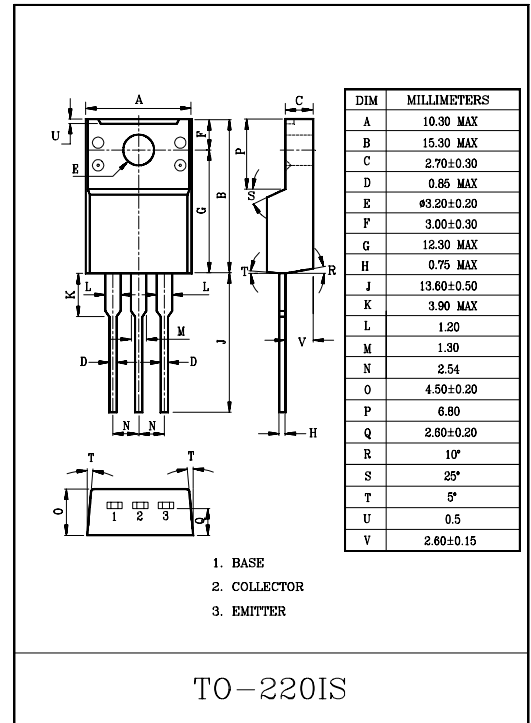
GENERAL PURPOSE APPLICATION.

FEATURES

- Low Collector Saturation Voltage  
:  $V_{CE(sat)} = -1.0V(\text{Max.})$  at  $I_C = -2A, I_B = -0.2A$ .
- Collector Power Dissipation  
:  $P_C = 25W$  ( $T_C = 25^\circ C$ )
- Complementary to KTD2058.

MAXIMUM RATINGS ( $T_a = 25^\circ C$ )

| CHARACTERISTIC              | SYMBOL             | RATING    | UNIT       |
|-----------------------------|--------------------|-----------|------------|
| Collector-Base Voltage      | $V_{CBO}$          | -60       | V          |
| Collector-Emitter Voltage   | $V_{CEO}$          | -60       | V          |
| Emitter-Base Voltage        | $V_{EBO}$          | -7        | V          |
| Collector Current           | $I_C$              | -3        | A          |
| Base Current                | $I_B$              | -0.5      | A          |
| Collector Power Dissipation | $T_a = 25^\circ C$ | 2         | W          |
|                             | $T_c = 25^\circ C$ | 25        |            |
| Junction Temperature        | $T_j$              | 150       | $^\circ C$ |
| Storage Temperature Range   | $T_{stg}$          | -55 ~ 150 | $^\circ C$ |



ELECTRICAL CHARACTERISTICS ( $T_a = 25^\circ C$ )

| CHARACTERISTIC                       | SYMBOL                | TEST CONDITION                     | MIN. | TYP.  | MAX. | UNIT    |
|--------------------------------------|-----------------------|------------------------------------|------|-------|------|---------|
| Collector Cut-off Current            | $I_{CBO}$             | $V_{CB} = -60V, I_E = 0$           | -    | -     | -100 | $\mu A$ |
| Emitter Cut-off Current              | $I_{EBO}$             | $V_{EB} = -7V, I_C = 0$            | -    | -     | -100 | $\mu A$ |
| Collector-Emitter Breakdown Voltage  | $V_{(BR)CEO}$         | $I_C = -50mA, I_B = 0$             | -60  | -     | -    | V       |
| DC Current Gain                      | $h_{FE(1)}$<br>(Note) | $V_{CE} = -5V, I_C = -0.5A$        | 60   | -     | 200  |         |
|                                      | $h_{FE(2)}$           | $V_{CE} = -5V, I_C = -3A$          | 20   | -     | -    |         |
| Collector Emitter Saturation Voltage | $V_{CE(sat)}$         | $I_C = -2A, I_B = -0.2A$           | -    | -0.25 | -1.0 | V       |
| Base-Emitter Voltage                 | $V_{BE}$              | $V_{CE} = -5V, I_C = -0.5A$        | -    | -0.7  | -1.0 | V       |
| Transition Frequency                 | $f_T$                 | $V_{CE} = -5V, I_C = -0.5A$        | -    | 9     | -    | MHz     |
| Collector Output Capacitance         | $C_{ob}$              | $V_{CB} = -10V, I_E = 0, f = 1MHz$ | -    | 150   | -    | pF      |
| Switching Time                       | Turn-on Time          | $t_{on}$                           |      | 0.4   | -    | $\mu S$ |
|                                      | Storage Time          | $t_{stg}$                          |      | 1.7   | -    |         |
|                                      | Fall Time             | $t_f$                              |      | 0.5   | -    |         |

$-I_{B1} = I_{B2} = 0.2A$   
DUTY CYCLE  $\leq 1\%$

Note :  $h_{FE(1)}$  Classification O:60~120, Y:100~200

